ABSTRACT

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An optical disk device is provided that can realize favorable recording/reproduction of signals on/from an optical disk having a plurality of signal planes arranged in proximity to each other. In this optical disk device, a hologram (4) is divided into n ($n \ge 2$) regions Ak (k = 1, 2, ..., n) by a straight line that intersects with an optical axis, and a photodetector (7) is divided into at least two regions A and A'. Light emitted from a light source (1) is focused on a signal plane (6a) or (6b) included in a plurality of signal planes of the optical disk by an objective lens (5). Light reflected from a first signal plane (6a) and light reflected from a second signal plane (6b) pass through the objective lens (5) to turn into light beams a and a', respectively, that enter the hologram (4). 1st-order diffracted light beams ak and ak' having a common diffraction optical axis are derived from the light beams a and a' that have entered the regions Ak of the hologram (4), respectively, and are projected on the photodetector (7). Distributions of the 1st-order diffracted light beams ak and ak' on the photodetector (7) are approximately inverted with respect to an intersection point of the diffraction optical axis and a detection plane. The 1st-order diffracted light beam ak is approximately within the region A and the 1st-order diffracted light beam ak' is approximately within the region A'.